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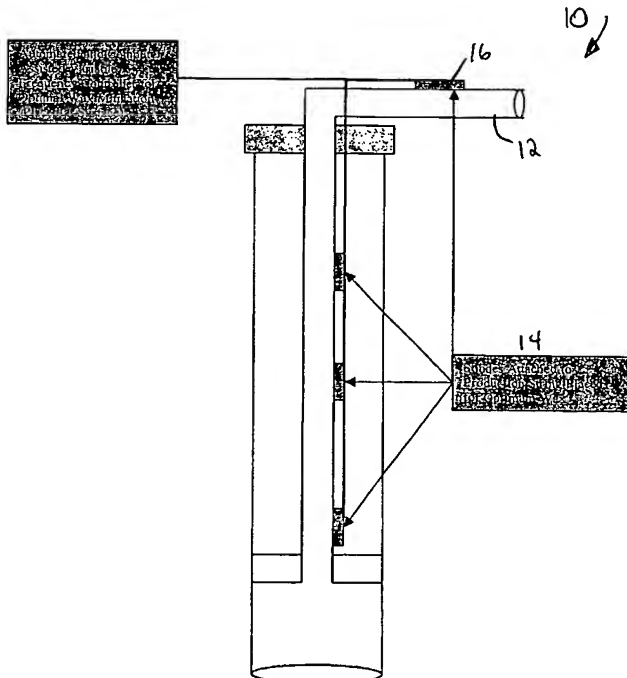
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[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR THE MITIGATION OF PARAFFIN WAX DEPOSITION FROM CRUDE OIL BY USING ULTRASONIC WAVES

Typical Setup on Production String



(57) Abstract: A method for mitigating the deposition of wax on production tubing walls (12). The method comprises positioning at least one ultrasonic frequency generating device (14) adjacent the production tubing walls and producing at least one ultrasonic frequency thereby disintegrating the wax and inhibiting the wax from attaching to the production tubing walls. A system for mitigating the deposition of wax on production tubing walls is also provided.



**Published:**

- with international search report
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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/28834

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : E21B 37/08

US CL : 166/304

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
U.S. : 166/304,310,902

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
none

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4,958,683 A (ALFORD et al) 25 September 1990 (25/09/90), see entire document.	1 and 9

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:

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"T"

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document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

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**INTERNATIONAL SEARCH REPORT**

PCT/US03/28834

**Continuation of B. FIELDS SEARCHED Item 3:**

East

search terms: wax or paraffin and ultrasonic